



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,049	05/04/2001	Marcos Katz	P 278027	8228

909 7590 04/07/2005

PILLSBURY WINTHROP SHAW PITTMAN, LLP  
P.O. BOX 10500  
MCLEAN, VA 22102

EXAMINER
----------

GELIN, JEAN ALLAND

ART UNIT	PAPER NUMBER
----------	--------------

2681

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/831,049	KATZ, MARCOS	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jean A Gelin	2681	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. This is in response to the Applicant's Request For Continued Examination (RCE) filed March 26, 2005 in which claims 1-20 are currently pending.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "the transmission directions" in line 8; claim 2 recites the limitation "the transmission direction" in line 9; claim 4 recites the limitation "the transmission directions" in line 8; claim 5 recites the limitation "the transmission direction" in line 8; claim 11 recites the limitation "the transmission directions" in line 8; claim 12 recites the limitation "the transmission direction" in line 10; claim 14 recites the limitation "the transmission directions" in line 9; claim 15 recites the limitation "the transmission directions" in line 9. There is insufficient antecedent basis for this limitation in the claims.

All dependent claims are also rejected because they depend on rejected claims.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2681

5. Claims 1-3, 6-13, and 16-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US 5,455,962) in view of Satoshi (JP Pub. No. 10256971 A).

Regarding claims 1, 2, 11, and 12, Kotzin teaches a data transmission method used in a radio system comprising a subscriber terminal (10) and at least one base station (21) which transmits signals to the subscriber terminal by means, of its antenna (22, 23) (col. 3, lines 19-30), the method comprising determining the quality of the signals received by the subscriber terminal by comparing the received signals with at least one signal quality threshold level (col. 5, line 59 to col. 6, line 25), sending to the base station (23), which transmitted the signal that exceeded the threshold, information on the antennas, which transmitted the signals that exceeded the threshold (i.e., MS sends information to BS regarding signal quality, col. 5, lines 50 to col. 6, line 25).

Kotzin fails to teach selecting from the transmission directions, from which the signal that exceeded the threshold were received, a transmission direction or directions in which to continue transmission of the signal to said subscriber terminal.

However, the preceding limitation is known in the art of communications. Satoshi teaches when the threshold value crosses the limit the directional antenna for communication for the mobile station is switched from the antenna 311b to one of directional antennas 311(a, c-f) to continue communication (see the abstract provided by the Applicant). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Satoshi within the system of Kotzin in order to select directional antenna that receives good signal quality to prevent a change in the transmission direction of the received signal.

Regarding claims 3 and 13, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches when the quality of several signals is within the acceptable levels, information on the quality of the signals is sent to the base station (23), and the base station can, on the basis of the information, decide which antenna it will use to continue transmitting the signal (col. 6, lines 1-43).

Regarding claims 6 and 16, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches if the quality of the signal received by the subscriber terminal (10) is below the lowest acceptable quality level, information on the quality of the above-mentioned signal is sent to the base station which, after receiving the information, interrupts the transmission of the poor-quality signal (col. 6, lines 11-25).

Regarding claims 7, 9, 17, and 19, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches the signal is transmitted to the subscriber terminal (10) by means of beams, and the final decision on the transmission antenna, transmission beam to be used by the base station is made in the base station (21) (col. 5, line 59 to col. 6, line 10).

Regarding claims 8, 10, 18, and 20, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches the signal is transmitted to the subscriber terminal (10) by means of beams, and the final decision on the transmission antenna, transmission direction or beam to be used by the base station is made in the subscriber terminal (10) (col. 6, lines 11-43).

Art Unit: 2681

***Allowable Subject Matter***

6. Claims 4, 5, 14, and 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A Gelin whose telephone number is (703) 305-4847. The examiner can normally be reached on 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (703) 306-0003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**JEAN GELIN  
PRIMARY EXAMINER**

JGelin  
April 2, 2005

*Jean Allard Gelin*